UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4
ATLANTA FEDERAL CENTER
61 FORSYTH STREET
ATLANTA, GEORGIA 30303-8960

May 25, 2007

Kimberly D. Bose, Secretary
Federal Energy Regulatory Commission
888 First Street, N.E.
Washington, DC 20426

SUBJECT: Draft Environmental Impact Statement for Hydropower Relicensing of the Santee Cooper Hydroelectric Project, FERC Project No. P-199-205 in Berkely, Calhoun, Clarendon, Orangeburg, and Sumter Counties, South Carolina
CEQ Number 20070120

Dear Secretary Bose:

The U.S. Environmental Protection Agency (EPA) has reviewed the referenced Draft Environmental Impact Statement (EIS) in accordance with its responsibilities under Section 309 of the Clean Air Act and Section 102(2)(C) of the National Environmental Policy Act (NEPA). The Federal Energy Regulatory Commission (FERC) proposes to approve a new major license for the Santee Cooper Hydroelectric Project, FERC Project No. P-199-205 in Berkeley, Calhoun, Clarendon, Orangeburg, and Sumter Counties, South Carolina. The South Carolina Public Service Authority (SCPSA) owns and operates the Project. The current license was issued in 1979 and expired on March 31, 2006. On March 15, 2004, SCPSA filed an application with FERC for a new license under Part I of the Federal Power Act to continue operating its existing Santee Cooper Project. In the interim, FERC issued an annual license, which will continue (renewed on an annual basis) until FERC has made a decision on a new license.

The Santee Cooper Project has an installed capacity of 130 megawatts (MW) and includes two hydroelectric dams and two reservoirs. The Santee Dam impounds Lake Marion, which is approximately 40 miles long and has an area of approximately 100,000 acres at normal pool elevation, on the Santee River. Most of the water impounded by the Santee Dam exits Lake Marion through a 5-mile long diversion canal to Lake Moultrie. The remainder of the water is discharged via the Santee Hydroelectric Station to maintain a minimum of 500 cubic feet per second (cfs) in the Santee River. The Pinopolis Dam impounds Lake Moultrie, which is approximately 10 miles long and has an area of approximately 60,000 acres at normal pool elevation, on the Cooper River. The U.S. Army Corps of Engineers (USACE) Cooper River Rediversion Project includes a rediversion canal that returns water from Lake Moultrie back to the Santee River through an 84-MW hydroelectric station near the town of St. Stephens and a fish lift to allow fish to pass upstream of the St. Stephens hydroelectric station. The USACE facility is operated by SCPSA via contract agreement, but it is not part of the FERC Santee Cooper Project.

Five alternatives were evaluated in the Draft EIS: 1) SCPSA's license application proposal; 2) draft settlement agreement (DSA) conditions developed by SCPSA, the U.S. Fish and Wildlife Service (USFWS) and South Carolina Department of Natural Resources (SCDNR); 3) state and

federal agency recommendations outside the DSA; 4) FERC staff alternative; and 5) the no action alternative (continued operation as required by the existing license). The FERC staff alternative, which includes the DSA conditions and some additional modifications, is the preferred alternative.

In general, EPA supports many elements of the preferred alternative, including the increased downstream flows below the Santee dam to better protect aquatic life and provision of appropriate fish passage for diadromous fish species. EPA also supports development of a drought contingency plan to coordinate operations between the Santee Cooper and St. Stephen projects and ensure that adequate downstream flows are provided in the Santee River during periods of low inflow. The FERC staff alternative measures of an adaptive management program and Operations and Flow Monitoring Plan are important additions to SCPSA's original application.

However, EPA has some environmental concerns related to water quality in project dam releases. The Draft EIS identifies that discharges from Lake Marion into the Santee River, downstream of the Santee station, do not meet state water quality standards for dissolved oxygen (DO) during mid to late summer based on continuous monitoring data from 2003. It is our interest to ensure that discharges from both project developments meet state water quality standards. Given the identification of water quality impairments in this reach, EPA supports the need for enhancement measures to increase DO concentrations and improve water quality in the Project tailwaters as part of the new license.

The Draft EIS concludes that the new minimum flow releases in the Santee River bypassed reach would likely improve DO levels due to spilled releases of over 1,000 cubic feet per second of higher DO, surface waters below Santee dam. This may be true if the new minimum flow releases are provided from spilled surface waters. However, the Draft EIS also suggests that this minimum flow would be provided within 36 months of the issuance date of the new license or within 30 days of the installation of a new minimum flow generating unit (turbine) at Santee dam, whichever occurs first. The effects of the operation of this new turbine are not included in the Draft EIS, since the concept was not fully developed in SCPSA's application. The Draft EIS suggests that the primary contributor to low DO in the Santee River below Lake Marion is discharges of oxygen-depleted water from the Santee station intake structure, which is situated deep in the water column. EPA recommends that the Final EIS identify how and when water quality standards will be met and address the water quality implications, specifically related to DO levels, of providing higher minimum flows through a new minimum flow turbine. If a new turbine is used to provide minimum flows, EPA recommends consideration of installation of the unit higher in the water column to avoid similar DO problems or utilize "through-the-blade" aeration technology (e.g., installation of aerating runners) in the new turbine to increase DO levels.

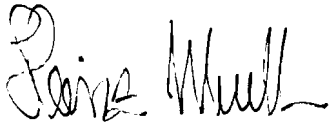
Based on our review of the Draft EIS and associated license application, it appears that characterization of the existing water quality is based on numerous years of monthly sampling data and less than two months of continuous temperature and DO monitoring in the upper Santee River. EPA is interested in continuing long-term water quality monitoring in the project area to determine compliance with state water quality standards, especially with the limited continuous monitoring data set currently available. Monitoring should be utilized to determine the effectiveness of the new flow releases and other project changes on improving water quality. It is unclear from the Draft EIS if the proposed Project Operations and Flow Monitoring Plan or Adaptive Management Plan will include any water quality monitoring to support such an objective.

The Agency and Interested Party alternative in the Draft EIS included proposals to conduct post-licensing water quality monitoring, along with a DO enhancement program, as appropriate. It appears that these measures were not accepted by FERC in the preferred alternative. EPA supports an overall monitoring approach following license issuance that includes rigorous continuous DO and temperature monitoring and a commitment to pursue a DO enhancement program based on the results of this monitoring. EPA recommends including this monitoring protocol in the new license. If at any time during the term of the new license, Santee Cooper can demonstrate through studies/monitoring that DO conditions have changed, it would seem appropriate to discuss with the South Carolina Department of Health and Environmental Control (SCDHEC) the possibility of adjusting the frequency/reporting of the monitoring protocol. This could also be included as an element of the overall the Adaptive Management Plan. This monitoring approach will be especially important to provide reasonable assurance that the proposed future operations will meet state water quality standards.

Given the proposed term of the new license (40-50 years) and the likelihood of changes in water quality conditions during this timeframe, EPA also recommends that the Final EIS include a commitment from SCPSA to participate in future South Carolina Total Maximum Daily Load (TMDL) processes for waterbodies that are within the project boundary or directly affected by project operations during the term of the new license. We recommend that many of these water quality issues should be addressed in the 401 water quality certifications developed by SCDHEC and subsequently included in the new license.

We rate this document EC-1 (Environmental Concerns). Enclosed is a summary of definitions for EPA ratings. We have concerns that the proposed action identifies the potential for impacts to the environment that should be avoided/minimized. Corrective measures may require changes to the preferred alternative or application of mitigation measures that can reduce the environmental impact. We appreciate the opportunity to review the proposed action. Please contact Ben West of my staff at (404) 562-9643 if you have any questions or want to discuss our comments further.

Sincerely,



Heinz J. Mueller, Chief
NEPA Program Office
Office of Policy and Management

Enclosure

cc: U.S. Fish and Wildlife Service, Charleston Field Office
NOAA National Marine Fisheries Service
South Carolina Department of Health and Environmental Control
South Carolina Department of Natural Resources
South Carolina Public Service Authority

U.S. ENVIRONMENTAL PROTECTION AGENCY
ENVIRONMENTAL IMPACT STATEMENT (EIS) RATING SYSTEM CRITERIA

EPA has developed a set of criteria for rating Draft EISs. The rating system provides a basis upon which EPA makes recommendations to the lead agency for improving the draft.

RATING THE ENVIRONMENTAL IMPACT OF THE ACTION

- LO (Lack of Objections): The review has not identified any potential environmental impacts requiring substantive changes to the preferred alternative. The review may have disclosed opportunities for application of mitigation measures that could be accomplished with no more than minor changes to the proposed action.

- EC (Environmental Concerns): The review has identified environmental impacts that should be avoided in order to fully protect the environment. Corrective measures may require changes to the preferred alternative or application of mitigation measures that can reduce the environmental impact.

- EO (Environmental Objections): The review has identified significant environmental impacts that should be avoided in order to adequately protect the environment. Corrective measures may require substantial changes to the preferred alternative or consideration of some other project alternative (including the no action alternative or a new alternative). The basis for environmental objections can include situations:

    1. Where an action might violate or be inconsistent with achievement or maintenance of a national environmental standard;
    2. Where the Federal agency violates its own substantive environmental requirements that relate to EPA's areas of jurisdiction or expertise;
    3. Where there is a violation of an EPA policy declaration;
    4. Where there are no applicable standards or where applicable standards will not be violated but there is potential for significant environmental degradation that could be corrected by project modification or other feasible alternatives; or
    5. Where proceeding with the proposed action would set a precedent for future actions that collectively could result in significant environmental impacts.

- EU (Environmentally Unsatisfactory): The review has identified adverse environmental impacts that are of sufficient magnitude that EPA believes the proposed action must not proceed as proposed. The basis for an environmentally unsatisfactory determination consists of identification of environmentally objectionable impacts as defined above and one or more of the following conditions:

    1. The potential violation of or inconsistency with a national environmental standard is substantive and/or will occur on a long-term basis;
    2. There are no applicable standards but the severity, duration, or geographical scope of the impacts associated with the proposed action warrant special attention; or
    3. The potential environmental impacts resulting from the proposed action are of national importance because of the threat to national environmental resources or to environmental policies.

RATING THE ADEQUACY OF THE ENVIRONMENTAL IMPACT STATEMENT (EIS)

- 1 (Adequate): The Draft EIS adequately sets forth the environmental impact(s) of the preferred alternative and those of the alternatives reasonably available to the project or action. No further analysis or data collection is necessary, but the reviewer may suggest the addition of clarifying language or information.

- 2 (Insufficient Information): The Draft EIS does not contain sufficient information to fully assess environmental impacts that should be avoided in order to fully protect the environment, or the reviewer has identified new reasonably available alternatives that are within the spectrum of alternatives analyzed in the Draft EIS, which could reduce the environmental impacts of the proposal. The identified additional information, data, analyses, or discussion should be included in the Final EIS.

- 3 (Inadequate): The Draft EIS does not adequately assess the potentially significant environmental impacts of the proposal, or the reviewer has identified new, reasonably available, alternatives, that are outside of the spectrum of alternatives analyzed in the Draft EIS, which should be analyzed in order to reduce the potentially significant environmental impacts. The identified additional information, data, analyses, or discussions are of such a magnitude that they should have full public review at a draft stage. This rating indicates EPA's belief that the Draft EIS does not meet the purposes of NEPA and/or the Section 309 review, and thus should be formally revised and made available for public comment in a supplemental or revised Draft EIS.